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The Canadian Garden

A Pocket Help for the Amateur

By . . .

Mrs. Annie L. Jack

J. Davis Barnett
12-1913.
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THE

CANADIAN GARDEN

A POCKET HELP FOR THE AMATEUR

BY

(MRS.) ANNIE L. JACK

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TORONTO
WILLIAM BRIGGS
1903

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TO

THOSE FROM WHOM I HAVE HAD

PLEASANT LETTERS AND ENCOURAGING WORDS

FOR

"Garden Talks"

IN THE "MONTREAL WITNESS"

THIS LITTLE BOOK

IS GRATEFULLY DEDICATED.

"Go, make thy garden as fair as thou canst,
Thou workest never alone;
Perchance he, whose plot is next to thine
Will see it, and mend his own."

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THE CANADIAN GARDEN.

AWAKING.

WHEN the snow lingers on the ground in broken patches, and grass looks up fresh and green beneath as it slowly disappears, it still seems a far cry to spring flowers and seed sowing, for the alternate freezing and thawing is very trying to the gardening temper, especially that of an impulsive, optimistic amateur.

At night there is no sign of change: the skies are dark, the air quite chill, and we imagine in our discouragement that the contents of the hotbed, closed too long, will grow spindling for want of air; some of them indeed already touch the glass, and need all their strength of stem to battle with the elements. But after a night is over, we awake some morning to find a marvellous change: the sun beams with a softened tone, there is a haziness in the atmosphere

the patches of snow have disappeared—"lo, the winter is past."

Somewhere in the distance a voice is singing,

"Where is the winter?
Under the snow.
Where is the snow?
Gone long, long ago."

And it certainly seems afar in the past that we had seen those patches of snow and felt the chill breeze, for there is an invitation in the very air to explore, and enjoy, and work in the fascinating environment of a Canadian garden.

Of course we have been studying the catalogues that have brought us to the verge of distraction with realistic tomatoes, cut in halves and showing their juicy richness, the pods of succulent peas lying open to be counted, and the radishes ready for a bite, but if we are thrifty the study is over and the seeds in order for planting.

It has been a vexed question, perhaps, what varieties to risk this year, for last season the tomatoes rotted instead of ripening, the peas perchance were full of weevils and the corn was late. How to get things into better shape, so that they will be more of a success, and perhaps how to get them to a paying basis, so that the seed and

labor will not be a total loss, and there will be something left besides dissatisfaction when all expenses are paid,—this is the problem before the amateur gardener, who wishes to enjoy the experiments and yet not lose the profits of labor.

It has lately been demonstrated to me that, when working in a garden and counting the cost, one must consider one's own time if this "paying basis" is to be secured, but we sometimes fail to grasp the idea of relative values. If, for instance, my time is valued at fifty cents a day, and yours at five dollars, how can we plant and hoe side by side, and make up the books at the end of the year? No, let me take time to look at the sunset while I am scraping my hoe (which, however, should be always clean if the soil is in proper condition), let me sit down on the grass, if so inclined, and dream, if I wish, of happy results in harvest time, without being expected to learn wisdom from the industrious ants that may be building a destructive hill on the bed of beets near by.

Who would measure time in a garden? Let me take a little while to admire the satin leaves of a vagrant rose, to inhale its perfume while tying up its wandering sprays, to "consider the lilies" without

anticipating the worm at the root. And, reader mine, we will scorn the clumsy insinuation that, because the hoe is our friendly ensign, we are fraternal relations of the ox.

Good advice has not been wanting as to the contents of this little guide. "Make it practical," says one. "Put a little sentiment into it," suggests another, and perhaps it is not realized how difficult it may be to strike a happy medium in this, as in all our work and play in this world of extremes.

The natural divisions of a garden are fruit, vegetables and flowers. Garden lovers differ according to fancy as to which should be placed first. The horticulturist would print "Fruit" in capital letters at the head of the column, and we, who imbibed those early chapters of Genesis with our milk teeth and our first apple, are aware that trees and fruit had quite a prominent place in that first amateur garden. But the herbs of the field are of first importance to the market gardener and to the gentle queen of the culinary department of our homes, while the flower lover would not call a garden complete without a rose. All depends on the point of view—whether æsthetic or practical, a hobby, a recreation, or a life work.

THE LAY OF THE LAND.

In the purchase of a rural home or a city lot the value of the position of the garden is too often underestimated, nor is the nature of the soil taken into account. The decision is often made from the attractions of the dwelling-house, its site or structure, whether there is good boating or a pleasant locality, but it is an afterthought that realizes how much depends on the poverty or richness of the soil, the depth of rock, the nearness to swamp, or the aspects as regards cultivation. Yet it is an important detail, and an advantage to know what to add and what to withhold in the way of fertilizing material, and whether the drainage is natural. No perfect soil can be recommended for all sections of country, and experience is often the only guide as to what is best suited to the locality. If, for instance, a man has land rich in potash, he does not require to add wood ashes, and a knowledge of the chemistry of the soil is a decided advantage. In this we are privileged, having the chemist of the Experimental Farm at Ottawa to analyze and determine our samples of earth, and the horticulturist to give us the results of his experiments in fruits, and the botanist

and entomologist to warn us of noxious weeds and injurious insects.

Builders often, in excavating cellars, have the clay spread over the garden, and cause future trouble, not always understood, in poor results with the crops planted therein.

The best soil for a garden has good natural drainage, and if it does not freely carry off surface water the plants will not thrive but become water-logged, so drains must be the first consideration. For this purpose tiles are best, and it is very important to get the necessary fall and proper level. In heavy clay soil the ditch must be at least three feet deep. A hemlock plank is cut into four pieces, then cut through the middle, and these parts split in two, making boards five inches wide by half an inch thick. These are put at the bottom of the drain and the tiles placed upon them. One point must be observed, and that is that the outlet must be built up so as to keep it free from weeds and the accumulation of rubbish, in order to give the water free scope.

In many gardens small stones are utilized in filling up the trench to half its depth, the larger for the bottom, covering over with inverted sods. A drain of this sort, while recommended simply on the merit of economy, will last a great many years without clogging.

If the land is flat and there is no rise of ground, it will be easy to plan, but where there are curves and slopes it requires care and judgment. Then, too, the land must be graded, and the smaller the area the more difficult this work will be; but it does not answer to have the land perfectly level, and when a lawn is made it must always be a little higher in the centre than at the sides, for if quite even it gives the appearance of a dip.

Unless there is plenty of space terraces are not to be advised, as they make the grounds appear narrow and dwarfed and are expensive to keep in order, while if left to an untidy growth they present an unkempt appearance that is anything but commendable.

Whatever is done, there should be a definite plan of the principal requirements, to remind the owner what is best suited to the lay of the land.

MAKING A HOTBED.

In the Province of Quebec the latter part of March is early enough for the amateur to become responsible for the care of seedlings in hotbed or window boxes, unless it is a very favorable season. To do this

successfully it is best to have a supply of autumn leaves that have been wintered over in a covered shed, and to them should be added double their bulk in fresh horse manure. A pile should be packed in successive layers, and fermentation will take place even in cold weather. After steam has been seen proceeding from the heap for two or three days let it be turned over and remain as long again. Then make an excavation about two and a half feet deep in some sheltered spot, if possible south or east. The frame should be eighteen inches high at the back and twelve in front, so as to give the proper slope to catch the sunshine. Cross pieces are placed for the sashes to slide on, so as to make it easy to open and shut. When the pit is filled and beaten down firmly, the sashes are put on and kept closed till the heat rises. These sashes are usually three by six feet, and one or two will raise enough plants for an ordinary family.

If on opening the sash the heat is ninety-five degrees, it is too hot to sow seed, but after two or three days, if it is tested with the thermometer, it will go down to eighty-five degrees, when earth may be put on to the depth of six or eight inches. This is a very important measure in the success or

failure of a hotbed, for if the quality of the soil inclines to bake, the seedlings cannot push through ; while if too light, it leaves the tender sprouts to dry up for want of nourishment.

Sow thinly in rows three inches apart, and when the second pair of leaves come transplant to another frame. Air must be given to prevent damping off by raising the sashes at the back. Always use tepid water when watering, and if a cold spell comes have mats and old boards handy for covering.

One mistake that is often made is sowing tender and hardy seeds under the same sash, when they require such different treatment. Sow celery, cabbage, cauliflower, lettuce and flower seeds marked "hardy" by themselves, while tomatoes, peppers and anything inclined to be tender will need more heat and protection.

Celery seed takes long to germinate and needs a good supply of water, and such hard shelled seeds as cannas need to be soaked in warm water twenty-four hours before sowing. And while reading upon the package the words "hardy" and "tender," it is as well to notice where mention is made of some that do not transplant well, and leave them for out-of-door sowing.

CAUSES OF FAILURE.

When, after all our toil, seed fails to come up, or is sparse and irregular, our first impulse is to blame seedsmen, and the burden of complaints they have to carry would daunt a less strenuous class of men. But, if the purchaser stops to think, it is easy to see that it would be a short-sighted policy for them to sell poor seed and ruin their trade, and that the fault is more likely to be in the planting and other unfortunate conditions.

Some people are so economical that they sow half a packet and put the rest aside till next year, by which time the germinating power may be reduced or lost, for there is a limit to the vitality of seeds and they differ with varieties. Onion seed should never be kept over, nor parsnips nor leeks, while those only good for two years are beans and peppers, salsify, peas, carrots, thyme, sage, egg plant and rhubarb; lettuce and parsley, radish and asparagus seed will keep a year longer. Then the varieties of the cabbage family, celery and turnip can be grown after keeping four years with a fair chance of success, while melon, squash, tomato, cucumber and beet seed can be

laid away in a dry place for half a dozen years and still germinate when planted.

All garden workers, however, have experiences with seed failures ; sometimes an insect has devoured them, sometimes small seeds are sown too deeply, so that the young plant cannot reach the surface, and very often there is neglect in rolling or pressing the soil over the seeds when sown, as this allows the heat to penetrate and to shrivel the tender sprout just as it is shedding its seed coat ; also, if not planted deep enough, the seedlings will not lay hold of the soil. Very small seeds need only to be dusted over the mellow surface and covered with sifted earth ; larger seeds are usually planted their own depth, in the same way.

Shading of the seedlings after sprouting is necessary if the weather is dry and hot, but more failures are brought about by drought just at the time of germination than from any other cause.

Air and moisture and a proper temperature are necessary, for in this respect seeds differ. Beans or other plants of the tropics require a temperature of 60°, while peas and all hardy vegetables do well with the thermometer making 45°. For this reason

many seeds are lost when sown before the ground is sufficiently warm.

A young plant, too, is as subject to disease and accident as a year-old baby, for a sudden current of cold air, a drying wind, or a sneaking microbe may destroy it altogether, or that most discouraging trouble, "damping off," blight the promise of success. This is a term used for the disastrous rotting of seedlings and cuttings at the surface of the ground. It is caused by excessive moisture, high close temperature and poor light. These conditions make the plant an easy prey to the minute fungi that live upon decaying vegetable matter, and there is no cure but to remove the healthy plants into fresh soil, as the disease spreads so rapidly they may be ruined in a night. It is a good plan to have all the earth sterilized before using, and never to flood cold water on the plants suddenly after a season of dry heat.

TRANSPLANTING.

By this is meant the removal of living plants to new quarters, and it is always a shock to the plant to be so dealt with. Consequently it is best to plant in well prepared moist soil, so that it may quickly

recover itself. The deeper and finer the soil the more successful will be the operation, and shade must be given until the roots take hold of the new soil.

Plants from a hotbed or box should be pricked out into a cold frame, or protected bed, which induces root growth and prevents them from becoming "leggy" and weak. The more frequently a young plant is moved the better it is able to withstand the final taking care of itself without protection, for its roots become compact and plentiful. Choose a cool, cloudy day, and have a pointed stick, or better still, a "dibber," to make the holes. Set the plant and bring the earth firmly around it, for packing tends to keep out drought and brings the under moisture up to supply the roots. If the weather becomes so dry that watering is necessary, it may be advisable to do so late in the evening. Make a hole at the side of the plant and pour in the water, instead of spreading it upon the surface. Tap rooted plants are not easily removed without injury and are better sown where they are to remain.

Large shrubs and trees are difficult to move, not so much on account of large roots as unskilful labor and a tendency to leave too much both branch and root growth

in the operation. Let shrubs be well pruned, the holes made wide and a good mulch put on after planting, and there is no reason why they should not grow, provided the roots have not dried in transplantation.

Large trees have roots extending a long distance, and care must be taken in digging. If very large, a house-mover's rigging is best, and when re-setting care must be taken to sift in new soil between the fine hair roots, getting it into contact with each rootlet, for if crowded together they are likely to rot. Prune the top and have the earth well tramped in around the roots. Late autumn is best for removing large trees, and October the best month for shrubs, unless the latter are got in early in spring. The reason for autumn planting is that the vital powers in the roots continue active long after they have become torpid in the branches, and fresh roots are formed during the autumn and winter to succeed those injured by transplanting. See to it that all bruised roots are cut off, and spread those that remain in as natural a manner as possible before filling in with earth. Evergreens are not like deciduous trees, in that they have no season of rest, the leaves remaining active during the winter, but from their structure, having a hard

epidermis, they are tough by the arrival of winter, but differ according to variety. The spruce lifts well, even when twelve feet high, and so do the pines, but they need a good ball of earth, and some of the firs are not easy to transplant successfully. If the trees are ten feet high, or over, use three poles set up in the form of a triangle to steady them and prevent shaking by the wind. For smaller shrubs it is a good plan to drive stakes into the ground, after the manner of tent-pegs, and attach to the tree.

One thing is certain, whether tree or vine, shrub or seedling, no transplanting will be successful if the roots are exposed to the air before reaching the soil. Some people treat seedlings as if they were air plants, and then wonder they are not successful in transplanting.

THE KITCHEN GARDEN.

In all gardening operations it is as well to bear in mind that as much labor, space, time and expense are needed to cultivate a poor crop as to produce a fine one, and that three things are essential for a vegetable garden—suitable soil, good seed, and clean culture.

The best situation is south-east, the best

soil a sandy loam ; it must be well drained and quite free from surface water.

To get the earliest crops the soil should be well supplied with decayed vegetable matter, and roots of large trees must not be allowed to overshadow it and sap the strength from the soil. Where the garden is large it saves labor to have everything in rows, cultivated with horse power, which must be frequent and shallow. In small grounds the land is best marked off into squares of convenient size, and the rule of rotation of crops does not allow the same vegetable to be in the same bed two years in succession, with the exception of onions, which can be sown year after year in the same soil, if kept in fertilizing materials, of which perhaps wood ashes is the best.

Ground must be kept clean and weeds not allowed to start, as it is more expensive to get them out when once established than to keep up a dust mulch by running cultivator or hoe between the rows to conserve moisture and promote growth, besides not giving the weeds a chance to start.

This subject of rotation of crops does not seem to be considered important by many amateurs, but it is a rule that plants of the most diverse kinds should follow one another. If one year there has been

such shallow-rooted vegetables as lettuce, potatoes or turnips, that absorb and assimilate the fertilizing constituents on the surface of the ground, let them be followed by such tap-rooted subjects as carrots, beets or parsnips, while the third year they may be changed to cauliflower or anything of the cabbage tribe.

Before the snow is all gone, if the drills have been made in autumn, it may be possible to sow peas, and the ambitious gardener is quite likely to want to steal a march on his neighbor by planting a row of Extra Early—that may have a blanket of snow afterwards. The jeering question, "Are your peas sprouting?" is best answered by "He laughs best who laughs last," for the peas, if well covered, take no harm from the belated poor man's manure, but come up vigorous and promising, and show their white flowers in May, before any others in the neighborhood are in bud. If stakes are a bugbear, grow the dwarf varieties, of which American Wonder is one of the best. Of tall varieties the old Champion of England holds its own, while the new Telephone has enormous pods later.

Light dry soil, but not rich, suits the pea, for if the land is too strong it produces more straw than pod. Early sowing is

certainly an advantage, and if the dwarf varieties are preferred, they can be sown in beds like bush beans, in rows about as far apart. There is a weevil that attacks them, and lately a new aphide has become troublesome. Hot water is the best remedy in both cases, for if the peas are soaked in it before sowing it lessens the chances of injury by this insect, while for the aphide the remedy is to spray the vines frequently with water of the temperature of the air.

After the peas it is time to rake the onion bed, even if the weather is chilly. Here is required rich soil, and to sow in drills a foot apart if in small beds. A few radish seeds sown among onions start early, and mark the rows before the onions show their tiny blades.

Carrots and parsnips need rich soil and early sowing, too, and the drills should be eighteen inches apart. The depth of sowing is determined by the size of the seed; shallow drills are best for these vegetables and faithful thinning, for it is poor economy to grow all spindling parsnips and pickling onions. Everything comes with a rush when the hardy seeds are sown, for there is raking and levelling to be done each season, and every hour counts when the growing season once sets in.

Beets need not be hurried, as they are a little more tender than some of the first mentioned, but spinach, if not sown in autumn, should be got in very early.

The amateur hesitates about putting in sweet corn after one season's experience of it being frost-bitten, but if the thermometer averages 55° to 60° in the shade and the oak leaves are the size of a mouse's ear by the tenth of May, he may risk beans and corn, squash and nasturtiums, or cress, cucumber and melon. Put in too early there is always a fear that a check may happen to tender seedlings, a good omen of fine warm weather being when birds are in full concert among the trees in the early morning.

Parsley and nasturtiums, dwarf thyme and cress make a good border for beds of vegetables; the parsley seed needs soaking, as it is slow to germinate.

There is not much pleasure attending a kitchen garden on a small scale unless there are walks and paths, but they are difficult to keep in order, and add to the expense. If of gravel, which is really the best material, weeds are sure to grow up among it; and grassy paths are not serviceable, for they require clipping regularly, and the wheel-barrow passing over them

makes it a necessity for boards to be laid down each time. Paths made of earth prohibit walking in wet weather, and gravel is really preferable if neatly edged with tiles or odd looking stones that can be picked up with a little research, if economy is an object.

Perhaps the most interesting vegetable is asparagus, and it has the merit of being a perennial that, if once properly planted and kept fertilized, will remain in the same ground for twenty-five years or more without renewal. It was at one time the fashion to trench the ground, but deep and thorough digging or ploughing is now the method employed, thoroughly incorporating barn-yard manure, ground bone, or other fertilizing material. The best soil is a deep, sandy loam, and if washed by higher ground, which is known as alluvial soil, it is the very best for the purpose.

For private use, beds are made six feet wide, with three rows planted in each, one in the middle, one on each side a foot from the edge, with a little path two feet wide between. A line is set and a cut made a little slanting to the depth of six or eight inches; this can only be judged by the size of the plants. The roots are to be

well spread, and when planted the top of the plant, called the "crown," should be covered about two inches. The plants can be raised from seed—an ounce will furnish about eight hundred—but it is economy to purchase two year old plants of a good variety, and save time. Palmetto has supplanted the old Conover's, but the size of the stalks depends upon the fertilizers used. Needless to repeat, the beds should be well enriched before planting, for it is a hungry plant, and needs good food to produce giant stalks. A dressing of superphosphate of lime in spring is of advantage, and after the crop is off the beds should have manure well dug in between the rows and constant cultivation to keep the ground clean. In autumn it is best to burn the tops to prevent insects or disease finding lodgment.

The plants can be cut a little the second year, but long continued cropping injures them while young, and it is well to stop by the time peas are plentiful. All shoots, small and large, must be cut off at the ground during the season of cutting, and plants grow more vigorous if seed is not allowed to mature.

A vegetable not sufficiently known is salsify or oyster plant, but it is coming

more into use. The treatment is similar to that of carrots, and it is quite hardy, not being injured by slight frost. If put into a box of sand in the cellar, it makes a nice change in winter vegetables, and if made into a milk soup, has quite the flavor of oysters. It is also used as a salad.

The potato is grown by planting the tubers, or parts of them, in drills three feet apart and four or five inches deep. Their drills should have a good dressing of manure two inches deep, and the tubers are planted about eight or ten inches apart. Ash Leaved Kidney was supplanted years ago by the Early Rose, and the crop, if planted in April, of either of these varieties, will be ready for the table in June. The Burbank is a valuable sort, and there are many late varieties well proved.

Next to the potato, the vegetable most in evidence in the amateur's garden is sure to be the tomato, and small yards or gardens of diminutive area will have a few tomato plants and bring them to fruiting. The plant will thrive if given a high temperature; it need not be sown very early in the hotbed, nor planted out till the last week of May. If the weather is hot in transplanting time, this child of the tropics enjoys the sunshine, and does not succumb

to moving, while the cabbage or cauliflower will wilt to the very heart with the same treatment. The best method of growing is to train to a wall or trellis, for in this way a finer flavored and earlier ripening tomato will be perfected. A dozen plants are ample for an ordinary family. Of seed, Earliest of All, or Atlantic, are good; if large tomatoes and meaty are wanted, Ponderosa is a success.

Squashes, cucumbers and the rest of the vines of that order are not planted till danger of frost is over. The soil is best light and sandy, and what are called "hills" made, but not by raising the ground above the level—simply taking out the earth to make a hole for manure and heaping up the soil is not the best method—but making the ground all rich and planting at distances apart suitable to the size of the vine: cucumbers and musk melons three feet apart, pole beans a little farther, and squash or pumpkins need a little more room. Cucumbers can be planted until July and often make a good second crop after early peas, radishes or lettuce. But it is no use attempting to grow melons without a hand glass or sash to start them, unless they are first grown in pots in the house.

Celery seed needs moisture and time; it

can be transplanted twice into a bit of spare ground and planted out as a second crop after early vegetables have been taken off.

As nothing is gained by leaving the ground to grow thorns and thistles, it is well for the amateur gardener to keep close watch, and fill up with utility, combined with beauty, the waste places that are sure to come after the early season is over.

THE FRUIT GARDEN.

No garden is complete without fruit, and it is the aim of the amateur to grow those varieties best suited for family use. Yet so varied are the conditions of climate that it is not easy to advise, for when there are lake and river effects, and where the air is dry, as in most inland counties, the result of quality and growth varies. Late frosts do not affect the fruit blossoms if near the water, and the moisture in the air and sweep of the winds often give finer fruit than in a confined valley.

The soil is also important, the best being a gravelly subsoil affording natural drainage, for cold, flat clay land is not congenial to fruit culture. It often thrives well in

a light clay loam containing vegetable matter, but resents stagnant moisture.

The standard apples here are Fameuse and Golden Russets or Grimes Golden, if only two trees are to be grown, thereby giving a good table fruit the first part of the season, and the russets will carry the family through to strawberries. If three can be planted a Duchess of Oldenburg is most satisfactory, but if there is room on the grounds for more, it is best to have ten or a dozen, as all may not fruit the same season, and if the slow growing and long lived sorts are planted between the early bearing and short lived kinds, they will not interfere with each other. Set thirty-five feet apart; those that bear early may be removed before crowding. This estimate is for planting in small gardens.

The Canada Baldwin, Golden Russet and Grimes Golden are choice winter varieties and slow growing, while between them the Yellow Transparent or Tetofsky, that may be cooked by the middle of July; an Astrachan, ready in August, and that prolific bearer, the Duchess of Oldenburg, that follows close after, as does the St. Lawrence.

The autumn apples that are choice until January are the Fameuse and the McIntosh

Red, giving us rosy-cheeked fruit of fine flavor.

A Hyslop crab will give a beautiful jelly, and is not so spreading as some of the crab apple trees that are frequently cut down because taking up too much room.

"But," says the amateur gardener, "we do not want to sell apples, and that will be too many; we shall only end by giving them away." It is quite true that unless there is room it is no use attempting to grow so many varieties, but as they do not all blossom at the same time it will sometimes happen that frost destroys one variety and does not injure another that is a few days later in blooming. So it is just the principle of not putting all the eggs into one basket. And what more acceptable gift, if they are too plentiful, than to give a basket of apples, grown and packed by yourself, to a friend who has none?

An indiscriminate planting of apple trees all over the garden is not to be recommended, for it has serious disadvantages. Trees take the nourishment from the ground wholesale. They shade other plants that need light and air, and though the injury may not be noticed while they are small, a difference is seen as soon as they are half grown. And when the spray

pump makes its necessary rounds, and other choice plants are within the range of La Belle Fameuse, the blue-green copper solution leaves an unpleasant appearance upon everything it touches. Then through the season the dropping fruit gives an untidy appearance to the garden. If the attempt is made to keep it in order by raking and sweeping up the premature fruit, it is an added expense, for the leaves often fall in showers in certain seasons and conditions, and neatness is difficult to maintain. Perhaps by chance the amateur gardener goes out at dusk, trusting to the well swept paths, and a newly-dropped apple is as capable of tripping him up as a bit of ice on a treacherous sidewalk.

Better lay off a piece of land, plant the trees in rows, and let currant and gooseberry bushes grow between them for a few years, rather than use ground that is needed for flowers, vegetables or other small fruits, although raspberries answer very well in the half shade of partly grown trees.

The best trees are two years old from the graft; the distance apart depends upon the soil. If thin and poor, twenty-five feet is enough; if the land is rich and deep, they should at least be thirty feet each

way in the case of standard apple trees, and eighteen or twenty feet for pears and cherries, while plums can be planted a little closer. Dwarf trees, most suitable for small gardens, can be about ten feet apart in a row.

All bruised roots must be cut off to the sound wood, and the holes are better wide than deep, but so that after settling the trees will stand as they did in the nursery for depth. A mistake often made is in regard to dry gravelly ground, which needs deeper holes than clay, and to be filled with good loam to induce the rootlets to take hold quickly.

If much exposed to wind, young trees should be staked, but a bit of matting should be put between the trees and stake to avoid chafing.

To prevent the ground baking, where tillage is not kept up, it is best to put on a mulch six inches deep of any rough litter, as it helps to maintan an equal temperature about the roots. But cultivation is best for the first few years, only it is as well to discontinue it after midsummer, or the trees may be tempted to make growth that will be immature when frost comes and cause permanent injury.

THE PEAR.

Every grower of fruit wishes to cultivate pear trees, and in small grounds where the space is limited dwarf trees are more desirable than standards They bear earlier, too, as a rule, and having small roots, must be supplied with fertilizing material such as wood ashes and ground bone. Varieties are many, but if only two or three can be allowed, it is as well to plant Clapp's Favorite for early, Flemish Beauty for autumn, and Lawrence for winter. There are others as good, in fact a Bartlett is preferable to any, but it has not stood the test like the first named autumn variety.

This fruit requires a rather stiff soil and does best in a clay loam if well drained. It is very subject to fire blight, which is often caused by forcing the trees into too quick growth. They must have time to develop slowly if this is to be avoided.

The best location is a sheltered corner, with protection on the south side.

PLUMS.

Of plums there are so many varieties as to bewilder the student of the catalogues, the hardier types of *Prunus domestica* being the safest, particularly the Orleans and Damson. This fruit thrives on various soils and seems to adapt itself to many locations.

If a plantation is to be set out, let the the trees be fifteen feet apart for the strong growing sorts, while weaker kinds can be planted a little nearer.

The Japanese varieties are apt to be injured by late frosts, the greengages, however, being more hardy. If only a few trees are required, it might be as well to try a Damson, Imperial Gage, and, for a Japanese, the early Red June that ripens with the Astrachan apple. For northern sections there are hybrids of *Prunus Americana* that have become useful, but they have not the flavor of the tender sorts.

The great enemy is the curculio, and the best practical method to save the fruit is to take half an hour every morning, if there are only a few trees, and spreading a sheet under each tree, shake or jar it, so that the stung fruit will fall and with it the curculio. Both must be burned at once, and there

will not be any trouble in raising a crop of fine plums. The time this is necessary is before the fruit is half grown. In fact, a week or two after the blossoms have fallen, if the plum is examined we shall find the newly formed fruit beginning to be punctured by the proboscis of the "Turk." If the tree is shaken, they will fall as if dead, and can be caught and destroyed. It is a stealthy enemy and needs close watching.

CHERRIES.

We all want sweet cherries, but if we send to a nurseryman he will frankly tell us, honest man that he is, that in our climate they are subject to bursting of the bark, as the sweet cherry trees are likely to make a late growth in the autumn, and the action of frost upon the trunks will result in cracking of the bark. If, however, dwarf trees are planted, the injury is not likely to be so severe when the branches are within one and a half feet from the ground, especially if grown on what is called Mahaleb stock. Another advantage of dwarf trees is that they are easily covered by nets when attacked by birds.

Sour cherries require little pruning, and the Early Richmond and English Morello

are valuable. They succeed in a variety of soils, but live longest upon one moderately light, while stagnant water is always fatal to them. Dwarf trees if planted near the house will be protected from the robins, who are, however, early risers.

"HIS OWN VINE."

The grape requires a warm soil and sunny exposure in order to ripen its fruit, and to escape early and late frosts must be planted upon high ground. If a number of vines are to be grown, a trellis will be required, with posts set twenty feet apart, six feet above ground and planted firmly, holding one row of No. 10 galvanized wire on the top, and another two feet below. The vines are set eight feet apart for small growing varieties, while the stronger sorts need ten feet.

For small gardens, when only one of each is required, Moore's or Campbell's Early (black) Lady, or Moore's Diamond (white), and Delaware or Brighton (red) are a good selection.

A fine large grape like the Niagara does not always ripen, and has a musky flavor that is not liked by some people, besides being subject to mildew.

The grape is subject to black rot and to attacks of downy mildew in cold, wet seasons, besides other diseases, but on elevated land it often escapes injury. If the clusters, when half grown, are enclosed in manilla paper bags, the fruit will be earlier and larger, besides being safe from frost, birds and insects. It is an easy operation, securing the bag by a pin or string, and is well worth the trouble.

The vines must be pruned before frost, and if at planting they have been properly cut back to three or four buds, and the roots well shortened, these buds will all start and one or two may be allowed to grow, the others being rubbed off.

The canes should be cut back the second year to the same number of eyes as the first year. After growth begins, care must be taken not to allow weak shoots to remain, and all summer suckers must be pulled out.

Spring pruning causes the vines to bleed, but this has been proved not to be injurious.

Laying down the vines and covering with earth is necessary in our climate, and if any of the trimmings are wanted for new plants they are taken from hard wood with three buds, tied in bundles and kept in the cellar, buried half their depth in sand, till

spring, when they are planted so that only the upper bud stands at the surface of the ground. In a year they will be large enough to plant out.

The best location is a sloping hillside and with a gravelly soil, while if near open water it is beneficial in warding off frost. During summer wood ashes will be found useful, and the vines must not be allowed to make too rampant growth.

RED AND BLACK RASPBERRIES.

Not writing this for commercial purpose, it is not necessary to enter into details in regard to small fruits, and in limited gardens the raspberry plants are not easy to keep within bounds.

Let the rows be four to six feet apart; choose plants that have plenty of roots, and do not set them any deeper than they were before removal. Keep the ground level and never bank up around the plants. It is an injury to plant too deeply, and an advantage to keep them pinched back all summer to three or four feet. In this way the stems grow strong and self-supporting, though in a small plantation they can be allowed to grow taller, and laid down like grape vines, covering them with earth.

Suckers must be kept away, as they reduce the strength of the plant and the size of the berries.

Of the black raspberries, Kansas is good, and Columbia among the purple caps, while Cuthbert is a valuable stand-by in reds, and Loudon for late fruiting. If a yellow variety is wanted the Golden Queen is the newest and hardiest, but the old Brinkle's Orange is good enough for me. Dewberries straggle too much to be recommended.

CURRANTS AND GOOSEBERRIES

are very necessary to the fruit garden, and need care and attention.

The hardy sorts of gooseberry, that are free from mildew, are Houghton and Downing—both small and of indifferent flavor, but prolific. The larger varieties mostly cultivated are Industry, Columbus and Smith's Improved.

It requires, like the currant, free circulation of air, and a cool, moist soil, and to be planted, like them, four or five feet apart. The fruit is borne on the old canes, and there should be half a dozen fruiting stalks, which can remain in bearing five or six years, and then make way

for others. The annual pruning means cutting out one or two of the old canes and thinning out surplus shoots.

Currants are injured by borers that work in the pith and soft wood. All canes so injured should be burned, and all prunings are better destroyed at once, for fear of the borer having a lodgment in them. Currant worms, as mentioned in chapter on insects, must be sprayed with Paris green, at the rate of one pound to one hundred and fifty gallons of water, early in the season. For my own part I prefer pyrethrum at the rate of a tablespoonful to a gallon of water, or dusting with white hellebore while the dew is on the bushes.

White Dutch, Red Victoria and Black Naples are standard sorts.

THE STRAWBERRY.

Of all fruits the strawberry is the most tantalizing—so difficult to keep in perfection for more than one season. Also it is difficult to recommend a choice, for what will succeed in one locality will not do at all well in another. This fruit is a gross feeder and requires liberal fertilizing.

The best method of growing, for the amateur, is in narrow matted rows, set out

as early as possible in spring, three feet or more apart, and one to two feet in the row, according to the tendency of the plant to make runners. A dibber is useful to make the holes; the roots must be spread out, and earth firmly pressed around them.

If there are many leaves, the outside ones are better removed, and if weather is dry, pour water in each hole before planting.

Should any blossoms appear the first season, let them be pinched out, and runners cut off when about one foot wide.

Let the land be cultivated deep early in the season, but after hot weather sets in just keep the surface soil loose, and never allow weeds to start. It is a good plan to apply a small quantity of nitrate of soda in August, when next season's buds are forming.

Late in the fall, after the ground has frozen, the plants will need a mulch of about one inch over the strawberry plants and two inches between the rows. This will give protection without smothering, and in the spring it can all be raked off and the ground cultivated, after which it can be put between the rows.

Cultivation in hills is the best garden method; if the soil is rich and runners

kept pinched off as fast as they appear, the fruit will be very large and high flavored. Always keep a mulch between the rows. Even the mowings from the lawn will keep the ground from baking hard, and lengthen the fruiting season, while if a heavy rain comes, the difference is easily seen between mulched and unmulched strawberries in the color and cleanness of the fruit.

The varieties are wonderful, and each has its particular merit in its section of country. For early fruit the old Cumberland with its pale color and fine flavor comes early. Brandywine is a rich medium berry, and Gandy is late. In the course of an experience with fifty varieties, none has been found quite perfect. Some commercial growers find Warfield and the old Crescent still good, and for largest fruit there are many claimants—Marshall and New York being enormous on strong soil. If the land has been ploughed the previous fall the cut worm will not be so destructive, and the leaf blight or rust is not so liable to attack new plantations. If fruit is expected there must be good growth made the first season, for on it depends the production of vigorous fruit buds.

Clean culture and rich soil are a necessity and lead to success.

PLANNING THE FLOWER GARDEN.

How can you lay out your flower garden? It is a difficult question to answer, for there are no hard and fast rules on the subject, and what suits one taste might clash with another. A garden is a part of the home, and shows as plainly as does the house the characteristics of the residents who are responsible for it. The first thing, however, to consider is the

LAWN,

for it is the canvas, and on it you paint with flower and shrub the picture that your fancy desires or your purse can gratify. If there is not a good green setting the flowers will not appear to advantage, and it is not often one particular flower or shrub that forms the picture in the landscape, but the *tout ensemble.* So the lawn, however small, must be graded and ploughed or dug, harrowed, and then made level, for the more completely the soil is pulverized the quicker will there be a green sward.

There are varieties of grass mixtures advertised, but the foundation is best of Kentucky blue grass, three bushels to the

acre, with a quart of white clover seed if it is approved, and a little timothy seed to come up and cover the ground more quickly than the blue grass will do. The seed must be sown and the ground rolled while the weather is cool and the land retains the moisture of spring.

If weeds come up they can be killed by the frequent use of the lawn mower, and if there are bare places, it is best to sow more seed on them.

Once made, it will be well to roll the lawn every spring to firm the grass roots that may be thrown out by frost; if the lawn is too small for this, it can be gone over with a barrel or the back of a spade.

Mowing must be done so frequently that the grass can be left for mulch, and in autumn a covering of leaves is protective and sufficient if the mowings have been so utilized.

South and south-east is a good aspect for the flower garden, and within sight of the house. If there are walks or drives, let us hope there are not too many curves or turns, for they cut up the grounds, make needless steps, and result in a foot-path being often made across from point to point, in spite of, and to the annoyance of, the owner.

There must be shelter from high winds and this can be given by groups of shrubs and ornamental trees wherever protection is needed. No one can tell without seeing the garden, or a plan of it, just where each group should be—all depends on aspect and conditions. If I have a bed of ferns in a cool, shady nook, and my neighbor plants its counterpart in full sunshine, the result will not be the same, even if both are carefully treated.

If it is suggested that beds in triangles and circles, with squares of geraniums and coleus are not so much in evidence now-a-days, we shall be referred to the city parks ; but it is a certainty that the fashion now in vogue, instead of this florid style of gardening, is long borders of choice perennials, summer-flowering bulbs and roots. Roses are set in beds, and ornamental shrubs blossom in glorious beauty and succession in the make-up of the floral picture.

THE ROSE.

In every garden the rose is queen, and so must have a chapter to herself, even in this limited space, for it is the flower of our desires and yet so often the flower of our failures. It appeals to the amateur with

many a thrill of sentiment, and we covet its possession as we do that of no other.

"Just to walk among the roses,
That is all.
Just to see them nodding, bending,
Of their fragile beauty lending,
Of their scented treasure giving,
We can ask no more of living!
Just to walk among the roses,
That is all."

But the practical cultural requirements of the national flower are many.

A stiff deep loam, such as would produce a good crop of corn; the situation open yet sheltered, that is, away from roots and shade trees, yet protected from strong winds. If the soil is not all that could be desired, add turfy loam, bones broken small, and barn yard fertilizers. Dig all deeply in and see that there is good drainage, for they will not grow if water-logged.

Make the bed five feet wide if it is to hold three rows, and let the distance between the roses be twenty-four to twenty-six inches. If preparation is important, planting is as much so. When nursery plants arrive, keep in the cellar till holes are made. These should be a foot square if roots are spreading, and deep enough to

allow the joining of the stock and the scion to be an inch below the level of the ground, if budded plants. Many roses are lost by failure in this precaution. Dip a piece of matting in water and lay over the bundle after carefully unrolling ; wrap each one in a small wet cloth till it reaches its new quarters ; spread out the roots and crumble some fine earth over them till three inches thick, when it should be pressed lightly down, and the same process kept up till the hole is filled.

The earth used should come from some other part of the garden, or virgin soil from a field, for it is not good for the roots to come into immediate contact with fertilizing material in the bed.

The planting must be firm to resist drouth, and the rose enjoys a sunny situation, but not scorching. In a moist season its foliage and flowers are more perfect than in a dry one, and a shower-bath every evening is a great advantage in a heated term.

For summer roses, blooming only in June, we have the old Persian Yellow, then Madame Plantier, the best of the double white, and the York and Lancaster, with its shadings from white to deep rose all on one spray. It is light of texture, but a

constant bloomer, and such a cheerful rose that one forgives its flimsiness. The old Province rose has richer shading and is often called the Cabbage rose, that queen of country gardens.

The Rambler roses vary in hardiness in different seasons, and the hybrids of this class make wonderful growth, and are suitable for arbors if laid down in autumn and covered with earth.

Hybrid Teas and Noisettes are endless in variety, but too tender to winter in our northern latitude. They can, however, be kept in a pit or cellar, and are very useful bedders. But it is to the Hybrid Perpetuals we look for our flowers without the trouble of planting every spring. There are few white of this class, Margaret Dickson and Merville de Lyon being the best. For pink, Mrs. John Laing is very dependable, and Marie Bauman, an old reliable sort, of a soft crimson shade. But nothing can surpass a Jacqueminot, and one called Earl Dufferin has rich dark tints with velvet texture. For a clear pink Paul Neyron stands the test, and Ulrich Brunner is a good red. For a satin pink nothing compares with Baroness Rothschild, but it lacks perfume, and does not always stand the freezing and thawing of our winters.

Attracted by the picture of Mrs. Sharman Crawford, it was planted, only, alas, to find it subject to mildew.

Summer care of roses consists in keeping down attacks of insects, and not allowing withered flowers to remain on the stems, for it is a known fact that it takes more of the vitality of the plant to allow one rose to go to seed than to bring to perfection half a dozen blossoms gathered in the bud.

Just when the buds first appear liquid manure should be applied to the roots every few days, and the surface soil loosened the next day to prevent baking. If this cannot be done, give a good soaking with clear soft water and cover at once with a mulch three inches thick of decayed leaves, placing over them a layer of sod earth.

In pruning, it is best to remove useless shoots, and shorten those that remain after summer flowering. All wood that is more than two years old is best cut out, and all that is twiggy and unripened. In leaving shoots care must be taken that the cut is just above a dormant eye making outward, and it is well to remove shoots that crowd the centre of the plant, for it must have air ; if grown in too close quarters it is sure to mildew.

For winter protection, bend over the rose bush, and peg it down with forked sticks, or, if not too tall, heap up earth around the stem. Covering with earth is better than collecting rubbish or boards, as they attract field-mice to take up winter quarters and feed on the rose branches. Coal ashes have a good reputation as a material for keeping away these little depredators.

The worst danger is in early spring, when, if not covered with earth, it will often decay even though quite alive and fresh when the snow melted. The covering, however, must be removed as soon as leaf buds appear, and for satisfactory results commend me to the old-fashioned roses that stand erect all winter ; it may be perhaps in the kitchen garden, but they give a wealth of blossoms "when the Junes with the roses are straying."

BULBS FOR ALL SEASONS.

First, the lilies, and foremost among them the old Candidum, often called the Madonna lily, said to be the emblem of nearly a hundred saints. It has a stateliness and purity all its own, is quick to increase and quick to resent removal. There are old-fashioned gardens where it is

established with the old blue larkspur, and forms a restful picture when in flower. The bulbs are covered with boxes upside down in late autumn, and if one is left unprotected it is always found in spring weaker than the rest.

The novice wishing to keep a tidy garden is apt to cut down flower stalks too soon after blossoming, for if the green stem is removed prematurely, the bulb goes to rest before maturing, and next season's flowers are smaller and weaker. This rule applies to hyacinths, tulips, and all other bulbs that remain in the ground.

The beautiful Auratum lily is not reliable. It will blossom for a couple of years and then be found too enfeebled to give a flower. This is often caused by an insect that affects it, and that takes some time to develop. The soil must be black muck and sand for this lily to do its best, and thorough care and culture is an absolute necessity, with plenty of water, heat and sharp sand, also partial shade.

The Tiger lily, grown in a mass in front of shrubbery, and the Turk's Cap, or Martagon, make good bloomers for the back of borders, while clumps of *Lily Canadense* are always interesting. These can be found in damp woods, and will flourish in

poor soil. To all lilies the mid-day sun is ruinous, and they are sensitive if disturbed.

Siberia has given us one of the hardiest, smallest and earliest of lilies, the *Lily tenuifolium.* It has small, waxy vermilion flowers that have a strong perfume.

The soft yellow Day lily is hardy and blooms with the roses, and there are scores of varieties that come to us from California and from Japan.

If the lilies have to be transplanted at any time, let it be done when the bulbs are at rest, for they often take years to become re-established.

Of bulbs to be planted in autumn for spring blooming we have the hyacinth, crocus, tulip and narcissus, with an array of small bulbs, the most interesting of which are the snowdrop and the grape hyacinth.

Daffodils are such cheerful flowers, with their golden chaliced cups, that it is a pity they are not satisfied with our climate, and can go on increasing. But they seem to disappear after a few years unless transplanted into new soil, this being the method in England, while in their native Holland all plants of this nature are taken up once a year. These bulbs dislike manure as

much as the lily, and enjoy the Dutch soil of dark sea sand. The depth at which they should be planted is a disputed question. In light soils it is as well to err in planting too deep rather than too shallow, and it should be done as soon as the leaf stalks die down.

It is not generally known that daffodils give the finest flowers when cut just before they open and when allowed to develop in water.

The tendency of narcissus to come blind is often a source of disappointment. Buds form and then wither, and growers attribute it to a hot, dry wind and a lack of moisture in the soil.

When spring bulbs have given us their flowers and lilies have faded, something is needed to fill the gap, and after tulips and hyacinths are lifted, to be dried and replanted in autumn, the ground can be filled with well started tuberous begonias and spotted leaved callas, or, farther back in the border, the tall *Hyacinthus Candicans.* To this end a little new soil raked in will be helpful and sustaining.

The gladioli come to us in marvellous shades since the new Lemoine and Groff's hybrids have been invented. They are of the easiest culture and can be planted any

time from April till July, blooming and thriving in a bed of rich soil alone, or doing equally well in the place where early tulips or hyacinths have been lifted. They need full sunshine, however, and after blooming are left till the first light frost, when they are lifted, dried under cover, and stored in a cool dry place. But for want of a stake, if left sprawling over the ground, half the beauty is lost, and the flower spike does not fulfil its promise.

There is not space here for description of many other summer flowering bulbs the amateur might fancy, but it is not wise to forget the autumn crocus, that opens its clusters of purple and white in September, as if to make us long for spring. These bulbs can be set out in May and do well at the root of a tree, making an interesting circle around its stem.

The dahlia is sometimes a flower of surprises when it is found blooming freely in some little cottage garden, for with the amateur it is often so very capricious as to be a yearly disappointment. It is influenced by too much heat, or too much dryness, or too much wet, and if early frost comes its blackened leaves attest the visit as quickly as those of the tomato.

The root is tuberous and tender, and

keeps best all winter in a dry cellar in a box with the cannas. In spring the tuber is divided and placed in gentle heat if the buds have not started, and it must always be remembered that a bud is a necessity for growth.

The dahlia likes a humid atmosphere, unlike the usual season in this province, and plenty of rich earth. A hole is excavated two feet across and over a foot deep, strong manure and richer soil is put in, and the sprouted tuber planted, covering the crown about two inches, and starting the other end downward. As the plants advance, if insects attack them, sift over them air-slaked lime, mulch the ground, and tie to stakes. If planted in groups they are able to make a fine appearance if they come into bloom. But to accomplish this there must be plenty of good fertilizing material in the soil, rich in potash, phosphoric acid and ammonia, with a top dressing of nitrate of soda.

Some care is necessary in taking up the roots in autumn, which must be done as soon as the leaves are blackened. They must not be bruised or cut, if possible to avoid it, and can be left exposed to sun and air all day.

The cellar, if their winter quarters, must

not be too warm, or they are apt to shrivel, and do not hibernate as well as their neighbors, the cannas, that require the same treatment.

BORDER PLANTS TO CHOOSE FROM.

The fashion of the day changes as much in gardening as in other things, and has brought to the front the dear old-fashioned flowers of English gardens, to which we, who are no longer young, look back with tender longing.

We have already discussed the border's bulbs, but when April comes we have as well the snow-white mass of the Arabis, the perennial candytuft, the daisy and moss pink. Later the forget-me-not, that should be in a clump in a half-shaded nook. By and by the *Alyssum saxatile* gleams out in yellow, and the Columbines shake their fairy bells in dainty coloring. Then *Dielytra spectabilis* gives its rosy hearts and fern-like foliage in sturdy strength and lengthened racemes that are always cheerful.

As the season progresses the iris begins to bud and the lily of the valley suddenly shows its tiny bells. The latter should be planted in an out of the way, shady corner

for when among other plants it is apt to intrude, and after flowering no management can keep it presentable.

Then the peony asserts itself and can make a garden a kaleidoscope of color. Where there is a little space these plants can be set among tulips, and give a glowing fortnight of pink and crimson and cream, while the after foliage is pleasant to look on at all seasons.

The lovely old Canterbury Bell is the finest—*Campanula Gaillardias* are showy, but have a habit of sprawling over the ground, yet not looking at home when tied up.

A clump of Iceland poppies look like glorified tissue paper, and open early in June, flowering, if seed is kept cut off, until October. But they are difficult to transplant, and a year of patience is required with seedlings, after which they keep on blooming continuously.

When the German, Spanish and English Iris have done blooming, the Japanese takes their place like a bird of paradise. It requires a moist soil, and being a gross feeder, the Iris will assimilate any food that comes its way, the Japanese giving it the most crude material. It needs a little winter protection.

The oriental poppy is a perennial worth waiting for. Seed must be sown where it is to remain, and the next year its immense flame-colored blossoms and finely-cut foliage will astonish the novice. It is a fast color, too, that neither sun nor wind can change. Planted in front of the Astilbe Japonica, that has its white feathery sprays about the same time, it forms a fine contrast, but its red overpowers everything when mixed inharmoniously with some colors. The front of the border will need little groups of plants, and the Montbretias, that are wintered as easily as gladioli, form a gleam of color on slender stalks, while the cardinal flower (lobelia) keeps up the brightness, and a clump of late dwarf phlox gives contrast. With plenty of room, a group of the perennial phlox in the wonderful new shades is a revelation.

Hollyhocks bloom the second year and make a good background. They are biennials, but last more than two years in well drained soil. "Chaters" are double and of delicate coloring.

Larkspurs are both annual and perennial. The latter can be purchased, like many of these mentioned, as roots, without waiting for seedlings. Their clouds of pale or dark

blue are effective in the border, and their lasting qualities are good if seed is kept from forming.

Scarlet Lychnis in one part and the deep cups of the blue and white Platycodon form another group, while Monarda (Horse Mint) will rear its showy heads, but too coarse for beauty.

The Day Lily (*Funkia subcordata*) blooms from August till October, fragrant and pure, its long tubes being the latest sweets to the belated wandering bee. The leaves are ornamental as a border plant with pale green heart-shaped leaves. Another variety has lavender flowers, while the leaves of another are variegated and and margined with white.

Other late flowering plants are Tritonias, that must be wintered indoors, and the fall Japanese anemone, that is not always hardy.

The darling of the ladies who are partial to yellow is the "Golden Glow" (*Rudbeckia*). It has spread itself like an epidemic over the country towns and byways, and is sturdy and faithful when flowers are wanted for hardiness, and careless culture. If cut off when first flowers are over, a new crop will come from the base, dwarf, but pleasing because so late.

Hardy chrysanthemums are coming into favor, from the old Belle Marguerite and Artemesias to the newer sorts that last into November.

The hardy asters, or starwort, have been wonderfully improved and make a cheerful group, proving the merits of civilization and culture.

In making perennial borders it is well to have the ground deeply dug, and careful selection as to graduating the heights of the plants must be made, or one has to suffer by a season's mistakes.

Division of roots are best made in autumn, and it is well to change the border every few years, if only to dig up, add fresh earth and replace.

Succession of bloom is necessary, for if all the varieties planted blossomed in May or June, the border would be unattractive for the rest of the season. For a short border, a crop of parrot tulips will give gay flowers early, while dwarf white phlox could be set at intervals between blue larkspur of the same height, and scarlet salvia for the intervening plant. The latter is tender and must be kept indoors in winter, but grows rapidly if cuttings are started in spring.

The fox-glove is indispensable for an old-

fashioned garden; its clean foliage and spikes of gay bloom make an effective appearance, but it is a little tender, and needs to be well covered up with leaves.

Taken altogether, there is more pleasure and less trouble in the perennial border than in any other division of the flower garden.

SHRUBS AND VINES.

There is a fascination in shrubs to the plant lover, from the first pink and white flowers of the Daphne to the latest hydrangea that turns brown after frost, but every garden has not room for a variety of these types of floral beauty.

If there is only a back yard, it is possible to plant a lilac or syringa and a hydrangea just within its boundary line, and a clematis or honeysuckle at the kitchen door.

On larger grounds shrubs look well in groups, and are seen to advantage with a green setting, but should never be put in the middle of the lawn to spoil the effect of the picture.

At the risk of seeming to imitate a catalogue, a list is given below of the best and hardiest shrubs for our climate.

In April the Daphne, the Golden Bell or Forsythia, the Magnolia Stellata, with its

large white blossoms that come before the leaves, and become acclimatized with care, and the Siberian pea flower, that has proved a treasure in the North-West, with its rich yellow flowers that cover the plant.

In May, we have the Deutzia, Robinia, Spirea Thunbergii, lilacs that are a wonder, with the new importations, so double and large, Tartarian honeysuckle, flowering plum and cherry, the dogwood and the flowering crab, Japan quince, almond, and fringe tree.

Then June begins with the Halasia, lovely silver bells, and the Spireas follow in succession, of which Prunifolia and Van Houttii are perhaps the best.

The Japanese Snowball is a wonderful improvement on the old type, and the pink Weigelia blooms at this time. When other lilacs have faded, the Lilac Villosa surprises with its late sprays, and later still the Lilac Japonica.

During this month the syringa (Mock Orange) has been giving its various flowers —first the double, then the large flowered grandiflora, the golden leaved and the late flowered—and the red and white Rosa Rugosas are at their best, a shrub without equal for beauty and freedom from insects.

The Thunbergii Barberry is like an

everyday friend—good all the year round. Nor must we forget the pink hawthorn, dear to English hearts.

Later there are the Altheas, and the *Hydrangea paniculata* gives its monstrous sprays that see us through the autumn days, while if trained to a post the Desmodium and the *Clematis paniculata* make very interesting looking shrubby substitutes, and give flowers during September and October.

We all want vines, but after roses there is nothing finer than clematis as a climber for the verandah, a screen for fences and for pillars. It requires rich, sandy soil, and to be well mulched and protected in winter, and given partial shade and plenty of water in summer. Amateurs wonder why the plants are expensive, but they are not so easily propagated as many other climbers, except *Clematis paniculata*, a native of Japan, mentioned elsewhere.

The honeysuckle has a charm of its own, and there are many varieties. For posts or pillars Hall's Japan is a very strong, vigorous grower, almost evergreen, with flowers changing from pure white to yellow. The old scarlet is hardy and brilliant ; its flowers have no perfume, but it is to be recommended for pillars.

Wistarias linger but do not grow robust, while the various Ampelopsis are of great use in covering walls. Unfortunately Quinquefolia is subject to the depredations of an insect enemy, and to keep it in check the ground must be clean at the root, and all fallen leaves and rubbish carefully burned. "Dutchman's Pipe," if once established, makes good covering with its large leaves and curious pipe-shaped yellowish brown flowers.

But if we can have only one vine on small grounds, let it be *Clematis paniculata* or a trumpet honeysuckle. In fact, they would do well side by side and give a succession of bloom.

Plant Boston Ivy, if it can be cared for in a sheltered position, and the tenderer clematis in the same way.

There are also climbers called Akebia and Actimidia that are promising, but not thoroughly tried.

HEDGES.

Very fine hedges grow in many parts of this province, and they add beauty to any place where they are successfully managed.

For ornament the Siberian Arborvitae takes precedence as an ornamental ever-

green hedge plant. It is of compact growth, fine form, great hardiness and deep green color, and keeps its bright green all through the year, being especially adapted for a dividing line. Hemlock also makes a beautiful hedge.

The American cedar is the cheapest hedge, though not so ornamental as the Siberian, being less dense and more spreading in habit, and Norway spruce, if kept in good shape, is quite ornamental and highly recommended.

As shelter belts, the Norway spruce and Scotch pine are best to protect from violent winds, or for dividing lines. The trench must be the full depth of the roots and wide enough to allow them to be spread, and earth must be sifted carefully in.

If a hedge is wanted where cattle are likely to invade, the Honey Locust is most valuable, as it is perfectly hardy and does not need special care. It stands clipping well and can be made into any form. It is generally planted in a double row, nine inches apart.

Evergreens should be pruned early in spring, before growth begins.

Many deciduous plants are used for hedges, especially as a screen between lots. For this purpose syringas and spireas are

used, while the pink lilac is quite ornamental all season, its clean, glossy foliage being preferable to the first mentioned.

The Japanese Barberry is beautiful where height is not required. Its fresh green and yellow flowers in spring, the summer foliage so neat and tidy, and the autumn glory of flame-colored leaves and berries, make it a low hedge of great beauty, while the thorns are a protection from small depredators.

The Ottawa Experimental Farm has made immense experiments in this work, and always gives information cheerfully.

PRUNING AND GRAFTING.

Must it be pruned? What shape should it be? Why need it be cut? are questions that vex the soul of the tree guardian when the pruner unsheaths the knife and looks in critical disapproval at a pet tree or shrub. The practical answer will be: "To make the tree more vigorous, to have finer fruit, to remove weak or diseased branches, and thin the centre of the bush." Inward comments of a connoisseur would be: "These shrubs are a scandal, they are full of straggling weak shoots, and if not severely

pruned the life of the plant will go, to say nothing of the appearance of neglect."

But trees vary in the way in which flower buds are set. The apple, pear and plum bear mostly on fruit spurs, and often branches are not able to bring all the fruit to perfection. Rightly managed, such trees are pruned every year slightly, and kept in check, not enough being done at one time to force or injure them. "Prune in winter for wood and in summer for fruit" holds good with these trees, also the old rule that "All superfluous branches we lop aside, that bearing boughs may live."

Garden shrubs should be pruned between the dropping of the leaves in autumn and the starting of the buds in spring, but not in frosty weather. Old gnarled stems should be cut out and the plant given, where possible, a graceful form. It must be remembered, in pruning such shrubs as weigelias, deutzias, forsythias and syringas, that they flower on the wood of the preceding year's growth, so that it is not wisest to prune them in spring, but after they have finished flowering, when the old wood can be shortened to make room for the wood that is to bloom the following year.

Lilacs, spireas, altheas and honey-

suckles need only to be trimmed into shape, and suckers and root sprouts removed as they appear.

Sometimes the amateur may wish to have two or three different kinds of apples upon one tree, and to this end try a hand at grafting, that is, to insert a woody twig, called a scion, into a stem, and induce it to grow.

Only a simple description can be given here, and the first thing is to take off what twigs (grafts) are wanted from last year's shoots and put them in the cellar to keep dormant till spring. They must be three buds length and wedge shaped. The bud nearest the top of the wedge is sometimes covered up by the grafting wax, but is likely to grow better for being near the sap. The work is done in early spring, and two scions are put in, even if only one branch is needed, the wound healing better if a twig is on each side.

For grafting wax melt together one pound of tallow, two parts of beeswax and four parts of resin. The melted mixture is poured into a tub of water, when it hardens at once and is then pulled, like molasses taffy, till it is light colored, when it is put away for future use. The best string to use for this purpose is No. 18

knitting cotton. The ball can be dropped into melted grafting wax and in five minutes the wax will penetrate, and it can be unwound for use. Four or five turns of the thread are made, and sometimes waxed Manilla paper is used. It all decays by the time the graft has "taken," and so does not interfere with the growth of the tree.

The operation of budding is generally performed in July or early August, and it is simply inserting a single detached bud underneath the bark of the plant or stock, as it is called. It is best done whenever the bark will peel and mature buds can be obtained. Cherries and plums are budded more than grafted, and when one wishes to change the variety of an apple tree it is customary to insert buds in the tops of the trees. The buds are often noticed to be more successful if set on the north side of the tree, shaded from the hot sunshine.

It may be useful to describe the operation. A thin bladed knife is used, and the stock is best when not more than two years old. An incision in the form of a T is made through the bark on a smooth piece of stem, the bark is raised so as to start the corners of the incision before

inserting the bud, which is cut from the scion and entered half an inch above the bud, and drawn downward about one-third the diameter of the scion and brought out an equal distance below the bud. This makes what is called the shield. The wood is left in the shield, and inserted beneath the bark without difficulty. It is best to have a boy follow to tie up the bud, and the stock must be in perfect condition before this work is attempted. Bass matting is used for tying, or the soft husks from ears of corn will answer the purpose. The scions must always be kept wrapped in a damp cloth, to exclude evaporation, but they must not be put into water, as it exhausts the sap. In order to hasten the work, the scions can be pinched at the ends and the leaves cut off to check wood growth and help development.

FIGHTING INSECTS AND DISEASES.

A facetious friend, soliciting money for church purposes, was asked why he did not wait until spring, when the apple trees would be in bloom and give promise of future prosperity. His reply was characteristic of the condition of the orchard as regards insects and diseases.

"No use to go to people then," he said, "the worms will be on the trees," and so with all branches of gardening it seems to-day that "that which the canker worm hath left hath the caterpillar eaten."

It is appalling to think that there are over a thousand different insects that are injurious to vegetation in our country, besides many serious diseases.

The ravages of the codling-moth can only be subdued by spraying, and when that formidable enemy, the curculio, sometimes called the "little Turk," sets its crescent-shaped mark on the fruit, it is too late to save it. A promising show of blossoms will be followed by the falling from the trees of two-thirds of the crop not half grown.

In small gardens, jarring the trees, as elsewhere mentioned, is the best remedy, but partial success is accomplished by the aid of Paris green in Bordeaux mixture. This enemy is not so destructive in heavy soil, and is said to succumb to the free use of salt spread over the surface of the ground in spring. One thing is sure, the fruit must be destroyed, for the larva is within when it falls prematurely. It is a small, dark brown beetle with spots of white, yellow and black, and scarcely one-

fifth of an inch long. It has two wings, but migrates slowly, and does enormous damage yearly. By the end of June the egg deposited in each has become a white grub or larva that eats its way towards the centre. When the fruit falls it easily makes its way into the ground, where it must be disturbed by frequent and deep culture in order to destroy it.

In view of this condition, every garden must be fortified with a spray pump of some sort, and everything depends upon its faithful use at the important time.

For a small place, where are only young and dwarf trees, a bucket pump will answer, but to reach the top of anything high in the way of apple, plum or cherry a force pump is necessary. Such as are advertised have been tested by successful competitive experiments, and are sold with barrel, nozzle and extension rod to be mounted on a cart.

The most troublesome disease for apple-growers is the black scab on the surface of the fruit, but the use of fungicides has been marvellous in effect. One tree left unsprayed in an orchard or garden will soon convince the most skeptical of the advantage of thorough work with the spray pump.

BORDEAUX MIXTURE

is so well known it hardly needs repeating here, but in every case where used the formula must be strictly adhered to.

Four pounds of copper sulphate (blue stone).

Four pounds of unslacked lime.

Forty gallons soft water.

The lime must be well burned in lumps. Fill a water-tight barrel one-third full of it and slake with hot water, adding it gradually so as to keep the lime wet, but do not flood it. The lime will absorb twice its weight of water when of the consistency of mortar. Stir this pasty mass, adding water if necessary, keeping a little always on the lime to prevent access of air.

Fill a barrel full of water—forty gallons. Weigh out forty pounds of copper sulphate and place in a coarse bag. Suspend the bag so that the sulphate is just under water, and when dissolved each gallon of this solution will represent a pound of blue stone.

In order to mix it, fill the pump barrel one-third full of water, and add four gallons of copper solution. Fill another barrel one-third full of water and add eighteen pounds of the lime paste. Mix thoroughly.

Then slowly add the lime milk to the blue stone solution by passing through a strainer, stirring continually. Then make up to forty gallons of water. If the mixture is needed to destroy insects, such as codling-moth or curculio, four ounces of Paris green is added.

The rule for spraying is: First, before buds start; second, as soon as blossoms have fallen; third, ten days after, or as soon as the apples are formed, and later if weather conduces to moist heat following cold nights.

The same mixture destroys many insects that prey upon the apple tree, and our old-fashioned enemy, the tent caterpillar, must be watched and webs taken off in spring, while the eggs that are found in rings around the twigs can be destroyed in winter.

For the borer the best remedy is a wire passed into the holes to destroy them. The best preventive is to place wire netting around the base of the tree and wash the trunks with carbolic soap.

If there is black rot and mildew on the grapes, anthracnose and leaf spot on the raspberry canes, spray, spray, spray!

If there is leaf blight on strawberry vines, spray, and after fruiting have the vines

mown off and foliage burned at once, when a new growth will start.

For cabbage worms dusting with hellebore is both safe and practical, and for the bean weevil it is a good plan to subject the seed to the fumes of carbon bisulphide.

For the blight and mildew on cucumbers and melons, spray with Bordeaux mixture when the plants are twelve inches high, and repeat every ten days. Indeed, for all fungii, black rot and mildew, the mixture is valuable for arresting its progress, and preventing it if begun early.

Grapes need spraying often, but the process must be omitted while flowering, with this or any other fruit.

For aphis, kerosene emulsion or tobacco water are the best remedies, and for the black fly that injures radishes, cress and cabbage plants, sprinkle with sulphur.

The cherry tree is subject to black rot, and it is possible in winter to go over the ground cutting out and destroying all diseased branches. They must be sprayed, first with the copper solution and afterwards with the Bordeaux mixture.

A new disease has attacked asparagus of late years, a rust that causes the plants to look as if they had ripened prematurely. The best remedy recommended is to keep

up the vigor of the plants by thorough cultivation; manure well after the cutting season is over, burn the patch over in autumn as soon as possible when tops are cut, and cover the land with a light but evenly distributed dressing of lime.

For the beetle it is possible to shake the larva from the plants in the middle of the day, but this insect is not very general.

The rot in the tomato depends largely on variety, and is more destructive if they are allowed to sprawl over the ground instead of being neatly tied up. Potato beetles are very destructive to them, and can be destroyed by spraying with arsenite as for that vegetable.

It does seem as if the potato had many enemies. It must be sprayed with Bordeaux mixture for the flea beetle, and with Paris green for the potato beetle (one pound to one hundred gallons of water and three pounds of lime). Repeat when necessary.

For blight and scab, soak the seed in corrosive sublimate, two ounces to sixteen gallons of water, for ninety minutes. Do not plant on soil where scab has been, and avoid stable manure. Keep on spraying.

Cut worms are often destructive to many plants. The remedy is to search for and catch them at their mischief, as they will

usually be found near their victims. Keep land well cultivated. Poisoned bran mash is often recommended to be applied before setting the plants, as in the case of cabbage and cauliflower and others that are transplanted.

The rose is one of the plants subject to insects and disease. There is a slug that attacks the cherry tree and then wanders to the rose. Of course it must be sprayed with the Paris green mixture or whale oil soap, if the birds do not keep it in check.

The leaf hopper succumbs to kerosene emulsion, and the red spider is only bad in dry seasons, on out-of-door plants.

If currant and gooseberry bushes are planted, as recommended elsewhere, between rows of apple trees, they can be sprayed with them, and thus keep the caterpillar at bay.

This chapter may seem to the amateur as made of undue importance, but a wise gardener will consider it an insurance and apply the remedies at the right time with all thoroughness.

The poisoned bran mash mentioned is made by taking forty pounds of wheat bran, two quarts of molasses, one pound of Paris green, and enough water to make a thick mash. Apply in the evening a day

or two before setting out, but do not let the poultry wander in the vicinity.

Insecticides are divided into two classes: Poisons that kill by being eaten, and oils or dusts that destroy by clogging the pores. Dusting must be done in the early morning while the dew is on the leaves of the plant. White hellebore is largely used for this purpose, five parts to ten parts plaster or flour.

For currants and gooseberries tobacco is used for root aphis and many other purposes, while sulphur is a good dust on rose bushes, vines or wherever there are signs of mildew.

For San Jose scale the spray is two pounds whale oil soap to one gallon of water; crude petrolum, pure or twenty-five per cent. Spray in winter.

All gardens may not need so much attention, but it has been demonstrated by those who are making a study of the subject that spraying is absolutely necessary to complete success in many localities.

Good judgment is more helpful to success in fighting insects and disease than any remedies that can be laid down, and it is well to remember that the birds are the gardener's best friends, and that this battle should be fought without a gun.

ANNUALS.

Plants that have to be raised from seed every year are called annuals, though a few of them will live over to the second year if not allowed to ripen seed. No specific directions can be given for growing them, for whether in masses or lines, mixed or separate, depends altogether on the sower's taste and limitations.

If of the same height, and there is no hotbed, the hardy sorts can be sown in the open border in April, when the ground is just dry enough. If wanted earlier, a good method is to sow seeds in boxes three or more inches deep, with holes or seams for drainage. Fill them within half an inch of the top with light, sandy earth and manure rotted till as fine as dust. Make it level with a bit of board, sow seeds very carefully, sifting fine earth over them. Keep at a temperature of sixty degrees, and spray with clear lukewarm water when the surface appears dry. Set in a kitchen or living room window, these boxes should give plants, if sown the latter end of March or early in April, that can be pricked out into other boxes, only not so close together, and be ready for the open ground by the 24th of May, which has often been found

a suitable and a favorite day for transplanting.

Those seeds that are marked "tender" are safer to be transplanted into little pots and kept in shelter till the first of June, but the date given is an average in which to risk the hardy plants we have watched and cared for all through the early months.

Seeds of biennials are also sown out of doors in the bed or row where they are to remain; they will not bloom the first year if so treated, but the second will give an array of snapdragon, foxglove and other interesting favorites.

The aster has made wonderful development the past few years, and plants raised in a hotbed soon come into blooming, while for late flowering they do well in the open ground, put in soon after sweet peas are planted.

The quilled Chinese look neatest in a bed. The Japanese often resembles the chrysanthemum, and lately the single aster has come into favor. It does not thrive two years planted in the same ground, and is subject to a blight that destroys the whole bed if once started. In that case, plants affected must be at once pulled up and burned, and sulphur raked into the ground around the roots of the other plants.

The camellia-flowered balsam makes a good border plant, but is too tender for outdoor planting early.

The Coreopsis is very showy in brown and yellow, and there are no finer annuals than Ten weeks stocks that may be treated like cabbages, and yet are so often attacked by the black fly as to need the application of sulphur. They are very lasting and endure till frost, emitting fragrance that is delightful. These plants have so many good qualities that they are well worth the trouble of transplanting several times in order to get them stocky and compact. They are to be recommended for bedding or pot culture, and make a fine show the latter part of summer set in a square plot a foot apart.

How entrancing the annual poppies, but they must be sown where they are to remain, and a sandy loam suits them best. To provide a succession, sow seeds at intervals, but the best plants are from early sowing, while the ground is cool and moist. Sow thinly, and as the seed is very small it requires only the lightest of covering, and needs to be thinned out till nearly a foot apart.

The early poppies will be in bud before the last tulip has faded, and they answer

well to fill the ground in a bed of these bulbs that is to remain undisturbed. They are truly the artist's flower for rich and varied coloring.

Beautiful Miss Sherwood, white and rose satin, and the scarlet Daneburg with a white cross at the base, so airy, so fragile, so suggestive of oblivion.

The annual phlox, when sown in masses, has a dazzling effect. Seed can be sown as soon as frost is out of the ground, later again in May. It is easy to transplant and lasts longer if kept from seeding.

The pinks last two years, but blossom the first season if started early in hotbed. Old plants flower the earliest, but young plants give the finest bloom. The average height is one foot, and plants should stand nine inches apart.

Petunias grow as easily as weeds, and blossom all the season. They do well in beds, baskets or vases, and grow in almost any soil, blooming through drought and heat. They need a hotbed or window box to start them, and must not be put out too early, as they are tender, but do not object to sunshine.

A tall bushy plant that is a source of dissatisfaction to the amateur is the Cosmos. Growing like a bush of asparagus

till late September, the gardener passes it with impatience, for the plants were strong and tall when taken from the hotbed, yet buds are only then just forming, and frost blackens them before opening. Lately an early kind, called Tints of Dawn, has given us bloom in August, and their pink and white quilled daisy-like flowers, that look like crimped dimity, are much in evidence till frost. It looks well as a background in front of a fence at a little distance from the house, and is useful where foliage is scarce.

Who is able to tell the glories of the sweet pea? Wings of beauty, from the little pink and white Blanche Ferry to the large dark maroon Shahzada. Since it has been brought to a high state of perfection, however, it requires more care in cultivation. Tolerably rich soil inclining to clay is best, but if too rich it causes an excess of vine at the expense of bloom. In light soil it is best to firm the ground after sowing to prevent blight. Let the land be prepared in autumn, and the seed go in as soon as frost is out. Seed should be planted two inches deep on heavy land, and three inches where land is porous and light. Slowness of growth is better at first than forcing, giving more root growth and

better hold of the ground. Whatever may be used as support must be strong, for nothing looks worse in a garden than a sagging row of sweet peas. A nice trellis answers very well, but the old fashioned plan of staking is more airy and in keeping with the flower, though this may be a matter of custom only.

The rows should run north and south, while if they are wanted to last late in the season, particular attention must be given to frequent cutting and not allowing the seed pods to form.

The bush variety, while curious and ornamental, is of such a different type that it does not seem to be identified with the rambling beauties we love so well. But it succeeds admirably in hot, dry weather, and in locations where the others fail.

In a garden during the spring months, and again in the late autumn days, one always looks for the pansy, and it seldom disappoints us. It has well been called "a plant for the million," as it is the most popular annual and the most satisfactory. But our climate is not moist and cool like that of Britain, and this plant succumbs to heat and dryness. The best situation is one sheltered from high winds and exposed to morning sun, while the soil suited

to its cultivation is of a rich clay. Pansies must be kept moist and shaded, if possible, from strong sunshine, to give best results.

The seed sown in early autumn gives the finest flowers, but if raised in a cold frame or pricked out into one from a hot-bed, they will give good bloom in early summer. Seed sown in a cool, moist place in July will give good flowering plants by the time the weather becomes settled to coolness, and often winter well and bloom in spring till the young plants are ready, when they should be pulled up to make room for the new relay.

Some of the French varieties are very fine, and the Giant Trimardeau has immense flowers carried well above the leaves, a good quality when they are planted in masses or beds. If seed is left on to ripen, the flowers are sure to grow smaller.

The new zinnias are not appreciated as they might, for they are so hardy and self helpful that seed sown in the open ground surprises one by early blooming. For a summer low hedge or division they are bright and constant, growing one and a half to two feet in height, according to the richness of the soil. Wonderful improvement has been made in form and coloring and they make a grey line to divide the

vegetable garden from the flower borders if good colors are chosen. The name "Youth and Old Age" suits the varied tints they take on in the process of maturity.

Since fragrance has been added to the good qualities of the verbena it is more than ever desirable. Seed should be soaked a few hours in warm water, and sown in seed boxes filled with light rich soil one fourth of an inch deep. When an inch high, they can be pricked out, which simply means transplanting into other boxes. They do well in hanging pots or baskets, as do the nasturtiums, that are such a favorite, and make a fine floral display for three or four months, especially since the wonderful range of color has developed. Though surprised at its great popularity, when one considers the lack of pleasant perfume, the pungent odor and vividness of its shades, it is a fact that it stands before all other annuals in giving the largest display of flowers with the least outlay of time and labor. It is the lazy gardener's flower indeed, blooming on poor soil, never looking weary in the heat of the day, and only yielding to dampness, as it will rot off in wet weather with poor drainage, but otherwise does not resent neglect.

The climbing varieties are useful to cover fences and stone walls, and can be made ornamental on a trellis.

Shall we ignore the morning glory because it is old-fashioned, or because of its low born relation, the bindweed? The annual variety is the simplest flower to cultivate and is well known, though not always appreciated. Its blue and white blossoms at dawn compensate for its retiring disposition in the evening, when its cousin, the moon flower, can take its place.

But the new race of Japanese morning glories are not sufficiently well known. Their beauty is extraordinary, and they are oddly marked and colored, not only rose and crimson, but mingled blue and purple almost to black and pure white. They are strongly veined and marbled, no two plants being alike from one packet of seed. Though of recent introduction in this country, they have been cultivated almost to a craze in Japan, and in 1830 as much as $15 was paid for a single seed of rare sorts. The seeds are slow to germinate, and are hastened by filing a small notch in each seed, and by soaking it a few hours in warm water. If each seed is put into a very small pot and allowed to

become slightly pot-bound before being transplanted, the blooming is hastened. In planting out give twice the space of the common morning glory.

There are many ipomeas, the old cypress vine being as pretty as any, trained on a trellis, and like the morning glory it opens in the morning to perish before night.

Mignonette needs a cool, shaded situation and soil. It can be sown in April for first blooming, if ground is suitable, and again at the end of June. Its fragrance is so familiar that no garden seems complete without it, and the dwarf variety makes a good border. The cabbage butterfly hovers over it to its destruction in many places, and watering with chemicals injures its appearance. White hellebore, powdered on while the leaves are wet with dew, is the cleanest remedy, though watering with buttermilk has been successfully tried. The freshness is gone, however, when these extreme measures have to be resorted to, and if, on the first appearance of the white enemy hovering over it, a bit of fine wire netting is laid over the plants for a few days, the danger will pass, as the butterfly cannot succeed in laying her eggs.

Marigolds and calendulas and annual chrysanthemums are useful to light up the

garden in late autumn, when we turn from more tender things that are feeling the effect of the first frost.

Shall we forget the poet's flower, the daisy? It is the beloved of all gentle souls, and though not an annual, is often so here, through the vagaries of the climate.

Sweet alyssum is a fine border plant, especially the dwarf, and a well managed bed of double larkspurs when in bloom is as fine as a bed of hyacinths, as is also one of candytuft.

Annuals are often spoiled by being huddled together till they lose their individuality, and their habits must be studied. A few plants well trained are beautiful if they have room to grow, while if crowded they are worthless. All the plants marked "hardy," if sown late in autumn in well prepared ground, will give stronger plants after lying dormant all winter than the same seed sown in spring, although they may not appear above ground any earlier. The reason is that they are prepared by the action of frost to get the full benefit of changes in the soil.

Seed of forget-me-not, the flower "of happy lovers," if sown along a border line will last for two years and probably seed itself for longer, if the situation is moist

and rather good soil. It may seem repetition to speak so often of the position in which plants should be placed, but nothing in nature thrives well if we attempt to grow it in opposition to its habits and natural environment.

If there is only a narrow back yard between high board fences, it should be dug, and in so doing much fertilizing and unsightly rubbish will doubtless go under ground.

A centre path can be made of cinders if there is nothing else, then there will be a border of earth on each side. These should be raised a little above the path, and where the sun shines longest, sweet peas, nasturtiums, or any other favorite climber can be sown close to the fence and trained to it with strings, and geraniums or other house plants needing the same treatment set in front.

The shady side can have pansies sown early and a border of mignonette, while in the most shaded corner a primrose or fern will summer and thrive.

Fifty cents or less for seed, some time and energy, will make a back yard attractive, and if the ground is kept clean, a few crocus, hyacinth or tulip bulbs planted in October will be a wonder and delight that

is ever new when they push their way into an awakening world through the moist earth in the early spring days.

ORNAMENTAL TREES.

The purpose of planting ornamental trees is for shade, or as single specimens on lawn or roadside.

For shelter belts the American elm, sugar maple, basswood and various oak trees are suitable when evergreens are not wanted, and for single specimens the cut-leaved birch, the virgilia or yellow wood catalpa, horse chestnut and ginkgo or maiden hair tree are very handsome.

For groups in the distance the swamp maple, beech, purple birch, scarlet oak and mountain ash are valuable, and the black walnut thrives and bears its sturdy nuts in profusion. In fact, all nut trees possess double value where they can be adopted.

In planting these trees it is well to consider the fact that those from a nursery will be more likely to thrive than if taken from the woods, more especially if they have any distance to travel.

For immediate effect it is better to set in a few quick growing trees, even if they are removed as the others advance, for the

finest of our trees in artistic appearance, the oaks, elms and hard maples, are not quick growing in the first few years after planting. The beauty of trees comes with maturity, and though stiff and erect, with but little shade during the first part of their existence, they improve with age.

When groups of trees are established and no longer to be cultivated, the land may be filled with periwinkle, moneywort and lily-of-the-valley, that will keep up an interest in the spot and give flowers without much sunshine. Ferns and wildflowers will thrive there.

In choosing a few trees for any ornamental purpose, large clean foliage and a pleasing form are much to be desired, as the effect on the landscape should be a matter of consideration. On a small place it is often difficult to decide, where only two or three can be allowed, but an elm is the type of graceful beauty in a tree, especially if arching effects are wanted; a soft maple is quick growing, and soon adds beauty to the landscape, especially in autumn; a linden gives shade and rather a tropical effect.

WINDOW AND CELLAR PLANTS.

When the seedlings are transplanted, and the garden in order, there is time to attend to the plants that have filled the windows in winter or been stored in the cellar.

Primroses can be divided and will make nice fresh plants if set out in the garden in a shaded place, but they must all be watered faithfully in dry weather.

The asparagus fern and Boston ivy will be as well in a shaded porch, if a little fresh earth is placed in the pot, which must be large enough to hold plenty of water.

If there is a stand of plants and it is lifted out of doors, care must be taken that there is not too much sunshine at first or the leaves will become discolored.

Petunias or verbenas taken out of the pots and pegged down will go on growing in the garden. Palms summer well on a shaded verandah, and ferns under an apple tree, if plunged like the azalea. In potting the latter, if they must be disturbed, be sure and have black earth and sand for their roots, as a touch of limestone causes destruction to the whole plant. They do well in the same pot for several years after planting, and, like the cactus, do not enjoy changing their home. It is a pity these

spiny plants are so little encouraged, for their odd shape and curious flowers are very attractive, and their chief enemies are too much water and the mealy bug. The former can be avoided by careful observation, and the latter must be industriously picked off.

The amaryllis and African lily can be encouraged to bloom in their pots, and a group of these beside the front door are very ornamental in summer, and they survive in a dry cellar.

Fuchsias that have been resting during winter ought to be valuable flowers for summer decoration. Give them warm water and a shaded position after taking out part of the soil and replenishing with new. They must be pruned back a little, just the tips of the branches, and for re-potting use soil of sand and light loam. It is serviceable to syringe the leaves often, as it keeps at bay the destructive red spider that works so much mischief and causes dropping of leaves and buds. Set on the north side of the house in good soil, the fuchsia and the begonia will grow rank and strong all summer with little care, while the geranium will require the sunny side.

The cellar is often filled in autumn with plants that we wish to live over till next summer, but have not room for in the

house. So many plant lovers try tying geraniums into bundles and hanging them in the cellar, with varied success, that it is as well to know that only old plants, with strong stocky roots, will survive this treatment. Young geraniums have roots too tender to withstand the air, and they shrivel and die. The same happens if they are stored in boxes loosely, but if planted in sand they sometimes get through the winter without trouble, unless the plants are full of new succulent growth.

Just to keep plants through the cold months a dry, well lighted cellar is a very suitable place. Hydrangeas and some of the jessamines and callas that are not wanted for winter blooming, fuchsias that flower in summer and need rest, will find it a good winter retreat for the purpose. They must not be often watered during this resting time, even the water lilies only need the soft mud at the bottom of the tubs, but not to be dry altogether.

When yellow green sprouts appear, it is not wise to force them into growth, but rather to put them in a cooler place and, if possible, keep them back, for when once started they cannot return to the dormant state. If set out with these premature shoots exposed to the

chill air of early spring, the wind and sun will cause them to shrivel beyond recovery. But the cellar must be cool enough for the dahlias and cannas to live there without sprouting while cold weather lasts. Indeed, the place best suited for potatoes, to keep them firm and in the best condition, will be safe to stow away surplus plants, and when the geraniums come into growth, it is a sure indication that the old woody plants have safely awakened from their dormant state.

To fertilize house plants nothing is better than wood ashes—as much as will lie on the point of a knife to a quart of earth, and thoroughly mixed. A bit of nitrate of soda the size of a pea in a quart of water often gives surprising results, or a little ammonia.

Tea roses in layers of sand, kept just moist, will be ready for budding and can be set out early, and the old clove pink is the better for a rest after a long summer's blooming.

Let it be always remembered that in this case wholesome neglect is better than over watering.

When the chrysanthemums finish bloom ing they, too, are consigned to the cellar

the tops are cut off, and the young growth kept cool, and not watered too much.

Early in May the tops of the strongest shoots are taken for cuttings, putting four or five round the edge of a three-inch pot. When rooted they are potted singly and cared for in an open situation, where they must be watered and the tops pinched out, leaving five or six joints for lateral shoots. They are shifted into larger pots as required, until they get a seven-inch, when they remain to bloom.

Coarsely broken bones make good drainage for this plant, and if given leaf mould, turfy loam and well rotted manure, they thrive luxuriantly.

Heliotropes will make a fine bed if planted out of doors ; young plants can be started for winter blooming, and the tuberous begonias will send out flower buds by the time settled weather comes.

Let all the pots be scrubbed clean before putting away, for a gathering of moss and slime on the flower pot will not encourage healthy growth when the plant is repotted.

Plant out the winter darlings—no longer are they imprisoned—like the barefoot boy let them feel the warm soil, and grow.

And here let a plea be made for chil-

dren's gardens in the home. Let each have a plot, however small, where they can plant and dig in the earth with a feeling that they own whatever comes up from the seeds they sow, or the roots they plant. And if no foot of land can be claimed, they can at least have a window box or a geranium in a pot.

No nature study taught in schools is equal to the experience gained by this plan. Children, as a rule, love to experiment, and to study in their own way the mysteries of nature, and it was only a prophecy of the life before him, when one dear boy of four years old pulled up a potato he had planted a few days before, and sat lamenting that he "could not find where the grow came from." And as we love and enjoy our gardens, so they will remember theirs, or the flower pot in the window—their very own—and in after years it will be a pleasant memory to bind them more closely to home.

L'ENVOI.

When the poppy seeds have once more scattered over the garden and it rests beneath its soft white covering, there is time to look over the summer past and note its failures and disappointments and, let us hope, its successes.

Time, too, for plans towards future improvement, and for study of best methods, and though air castles have vanished, a more substantial structure may be built on the failures of the past.

So, to the amateur gardener this little book is consigned, hoping that some useful suggestions may be found by which to improve the home surroundings.

The writer has a profound sympathy with the novice in this work, having served a long apprenticeship in the fascinating pursuit, and has still much more to learn and to unlearn.

For the picture framed on the lawn is always unfinished ; a new flower, a newer fruit, lures on at planting time, while constant changes must be made with plants that are condemned or misplaced, and though perfection is aimed at, it is never reached.

Around an old garden there are many

memories both sad and glad, and as it lies asleep we can still remember the fragrance of the sweet briar and the aroma of the strawberry.

In retrospect we see once more the blue and white bed of English violets, with their subtle bewildering perfume, where with one in harmony attuned they helped us to worship the Creator through His gift in the Sabbath stillness of springtime. Could violets have a dearer mission?

New gardens, too, contain a prospect that one may almost envy, for there is no pleasure can surpass that of anticipation, when it is for the betterment of humanity, working hand in hand with nature.

"For he who blesses most is blest,
And God and man shall own his worth,
Who toils to leave as his bequest
An added beauty to the earth.

"And soon or late, to all that sow
The time of harvest shall be given.
The flower shall bloom, the fruit shall grow,
If not on earth, at last in heaven!"

MONTHLY REMINDERS.

JANUARY.

It is no use to cork up all the windows and keyholes and then wonder why the plants die. Open a door or window every day for half an hour, unless too stormy, and regulate the heat if possible.

If green fly is troublesome, tobacco in any form will destroy the enemy.

Hyacinths and other bulbs can be brought to light if pots are full of roots, and plants must be kept moist by careful syringing. Look out for mealy bug, and wash leaves and stems of coleus and other plants that suffer with wood alcohol.

A walk on snow-shoes through the garden may give good returns. If the Clisiocampa is found to have laid its eggs on the twigs of apple trees, they can be taken off and burned, thus destroying a multitude of enemies.

Have stakes ready for plants, all painted green and ready for use.

FEBRUARY.

If no plan has been made of the garden, this is the time to attend to it, also to prepare labels for plants, shrubs and trees. Clean last year's seeds and have them neatly put up, with name. Study catalogues and order trees and seeds early, as often the stock wanted may not last through late orders.

See to it that tools are in readiness. Hoes and rakes are often as good as ever, but loose at the handle. Spades break, and the reel and line requires attention.

Is the lawn mower in order? It is a waste of time to wait until the grass grows under your feet.

MARCH.

Plants need more attention now there is strong sunshine. Water in early morning, keep the thermometer to regulate atmosphere, and see that it does not get too hot in the middle of the day, for without ventilation the plants are doomed.

More room is needed, for the growing season has come, and if crowded, healthy shoots will not be made for propagating.

Make cuttings of plants that are to be bedded out.

Have wood ashes scattered over garden beds ready for raking in later.

See that drains are in working order, and prune trees in fine weather, keeping a sharp lookout for insect enemies and field mice.

Bulbs that have done flowering may be stored in a dry cellar without water, ready to put out into the ground in settled weather.

Cannas and dahlias may be started in pots. They can be divided, and make haste slowly, getting well rooted before planting out.

See that plants in cellar are not neglected. Start tuberous begonias by bringing them to the light and giving a moderate supply of water.

Purchase shrubs and trees from localities where they thrive and are not too long in transportation.

APRIL.

Spades and shovels must be strong and in order, for there will be some digging if fruit trees are to be planted. They must be got in early if to get benefit of spring rains, and thrifty is that gardener who knew how and where to dig the holes in

the fall. But it is better to keep trees in cellar storage than to plant in wet land, especially if it is stiff clay, for if a frost comes afterwards it proves disastrous.

Work crowds this month. Seed must be sown after ground is raked, and bare spots sprinkled with grass seed after the lawn is cleared up.

Shrubs must be set out and changes made that were planned in autumn; trees must be removed if they have been misplaced previously.

Grape vines, raspberry canes, strawberries and other fruits must have the mulch partly taken off, or, as in the case of roses, be lifted.

If new plants are to be set out of any of the above, let it be done as early as possible, for late planting is seldom successful.

Plant potatoes and other hardy vegetables. Most vegetable plants take to early planting.

Raise your own lettuce, if it is only in a box by the kitchen window. If seed was sown in boxes in March, the plants can be set out by the end of April, or seed can be sown this month. Early Curly and Grand Rapids only take five or six weeks from seed to be ready for the table if weather is seasonable.

House plants get fagged, and should be trimmed for cuttings and given water and shade.

Pruning will be absorbing work. Keep a sharp saw for large limbs, and a knife for smaller ones. Paint the ends of all limbs over two inches in diameter with grafting wax.

Prune raspberries and see that the hot-bed gets well ventilated, and seedlings thinned out and transplanted into a cooler frame.

MAY.

Sweet corn is best grown in rich land, being planted in rows five feet apart, and eight inches between the kernels.

Do not have to send to the store for seed when it is corn planting time only to find that the best sorts, Early Minnesota and Crosby, are all gone.

Sow a few weeks later to have roasting ears till frost.

Sow a row of dandelion seed for greens on the first of the month; it makes fine early salad.

Cauliflower seed, if sown out of doors this month, will give good plants for late use.

Pots containing azaleas and other woody

plants that are to remain all summer must be sunk to the rim in a bed of coal ashes, to keep out angle worms. They need constant attention and watering while making new growth.

A few peppers and radishes do well together. The latter are all pulled up and used before the peppers make any headway. Sow thinly.

The lawn must be kept mown as soon as there is any growth, and edgings clipped with a pair of shears.

In the orchard the first spraying will take place before the buds open, a time that often varies ten days. For tall trees an extension rod will be necessary, and there must be skilled labor given that no part of the tree is overlooked.

Stir the strawberry land to keep weeds down, and keep the hoe sharp. Put a load of earth in hollow places and allow no waste corners. Plant a rose where there has been a weed.

Have the door yard cleaned up if need be, for by the back door, more than the front, we shall all be judged, and the ashes, after burning rubbish, are valuable to the garden.

It is the month for transplanting, and the hardy plants may be set out by the

middle of May, while tomatoes, egg plants and tender annuals had better stay protected until the 24th.

Seeds of vegetables that did not get into the ground by the first of May must be sown as soon as the ground is dry and warm. Thin out early before they crowd.

During this month the rhubarb is at its best. Pull carefully, and never on any account take out the heart of the plant. The new red stalked is of the finest flavor.

Small fruits may be planted early in the month, and the second sowing of peas put in.

Plant a strawberry bed.

JUNE.

If the spring bulbs are not all lifted, let them be taken up, and coleus, achemenes or any bright, tender plant fill their places. Keep on spraying!

The lawn will need cutting every week at least; if it is too long to be all left for a mulch, it will answer that purpose around strawberries or any of the small fruits.

Cannas, montbretias, caladiums, hyacinths, candicans, dahlias and gladioli will take the place of the tulips and daffodils when they have done flowering.

The cuttings of geraniums, taken off earlier and growing in boxes of sand, can be set out at the beginning of the month, and fill beds where late tulips are blooming.

Spray rose bushes for the leaf hopper with fir tree oil or kerosene emulsion. It does not take long for these insects to destroy the beauty of the garden when the rose leaves are eaten to transparencies. "An ounce of prevention" doesn't go far this month—it takes a good many pounds to keep pace with weeds and needs.

Sow for succession, or where seeds have missed, such vegetables as corn, beans, peas, cucumbers, lettuce and radishes, while potatoes will still do well if early sorts are planted.

Keep down weeds; it is easier and cheaper to go over the ground with a rake when they are small.

Mulch the strawberry bed, if there is a fancy for clean fruit when rain comes, and to keep out drought if weather is hot and dry.

If young trees have set fruit thickly, have the courage to take off one half of it. The fruit left will be finer and the tree more vigorous.

Cut off dead roots and seed from early shrubs.

Just now the watchword is—Keep hoeing!

JULY.

Many of the herbaceous perennials will need staking. Select the stick in proportion to the height of the plant, and use those prepared in January. Tie loosely with soft bark, that the tender buds or leaves may not suffer.

Dahlias and gladioli need special attention in case of storms.

Train the sweet peas over the trellis or stakes and take off all flowers unless specially wanted for seed ; first blossoms of any annual are best and earliest.

Draw the earth up to their roots after hoeing, so that the heat will not penetrate too much.

Prune rose bushes as soon as they have done flowering, cutting hybrid perpetuals well down, so that fresh growth and buds will start for flowers in September. Apply liquid manure.

If weather is wet, the fourth spraying must be done for apple scab.

Asparagus will be finished cutting and can be fertilized and kept clean for next season's crop.

Young canes of blackberries must be kept down to three feet, and raspberries the same.

Give all young trees a mulch to keep down weeds and retain moisture. Remove all suckers or sprouts that start from the limbs or roots.

Never allow windfalls to lie on the ground if it is at all possible to pick them up.

Spray potatoes every ten days with Bordeaux Paris green mixture to prevent scab rot and potato bugs.

Keep the tomatoes tied up and thinned for early fruit.

Cover the joints of squash vines with fresh soil, and pinch off the ends if they ramble too far.

Look over house plants that are plunged and see if roots are coming through the pots. Cut back all plants wanted for winter blooming.

Set strawberry runners for new bed in rich land. Sod land that has been a year in potatoes suits them best.

Pinch off grape vine shoots, so that the strength will go into the fruit.

Celery, cabbage and turnips for winter use are best planted this month, and can be grown as a second crop where peas or other greens have been cleared off. See that the land is clean and soil rich before planting.

If the cucumber beetle is troublesome on this plant or on the melons or squashes, mix a little kerosene with land plaster and scatter over the hills.

Have a care for young chrysanthemums that are to blossom next winter, and re-pot the poinsettias and freezias.

Grass will not grow quite so fast, but it is a good time to cut out plantains and other weeds with a sharp knife.

AUGUST.

Budding will not be all done by this time.

Have an eye to the wrapping around the stock and do not allow it to cut into the bark.

If young plants of gooseberries are wanted, it is a good plan in a small garden to lay young growth on the ground and bank the earth around them. They will root and can be cut into plants.

All summer the soap suds from the family washing are valuable in the garden, especially on rose bushes, but it must be put on in the evening and the ground stirred the next day to keep it from baking.

If tomatoes do not ripen fast enough, they can be picked just as they begin to color, put on boards in the hotbed that is now vacant, and covered with a sash.

Gather first seed of choice flowers or other plants that may be ripe and store in a dry place.

If there is mildew on the grape vine, sprinkle with sulphur.

Hoe celery, but do not earth up until cooler weather.

If beans are kept picked clean and seed not allowed to ripen they will continue to bear for a much longer period.

Early plums will keep longer if wrapped in paper and placed on shelves in a cool dry place.

It is a good time to prune currants, gooseberries and raspberries after the fruiting season is over.

SEPTEMBER.

It does not seem long since the tender house plants were put outside, yet before the middle of the month they must be once more lifted from the ground and put in as cool a place as possible.

When the summer flowering bulbs have finished blooming they can be lifted, and what we call the Holland bulbs planted in their place.

The soil best suited to all bulbs is a rich sandy loam, and they can be put in any

time from the middle of September till the ground is frozen hard.

Hyacinths should be planted eight inches apart each way, and from three to four inches deep; tulips that are large and late the same, and the early tulips that are smaller should be a little closer and a little less deep.

Crocuses may be planted in masses, and only require to be three inches apart and two inches deep; snowdrops and other small bulbs the same, while the narcissus family need rather deep planting.

In the kitchen garden, if ripe, onions must be gathered and left to dry on boards or in a shed, and all the vegetables that are hardy make good growth after cool weather sets in.

Celery can be hoed and earthed up, taking each plant separately and handling it; that is, grasping the plant with the left hand, holding it close, so that no earth gets into the heart, and drawing the soil around each plant separately with a spade.

Beans must be garnered and shelled, and if not suitable for use will be good to plant another season.

Herbs should be cut when in flower and placed in paper bags in a dry loft, and everything secured that is likely to suffer from frost.

New plantations of strawberries can be made, and vegetable seeds, such as spinach, cauliflower and lettuce, can be sown in cold frames for spring use.

OCTOBER.

This is the apple picking season and needs no other reminder on that subject than to pick for keeping before seeds are ripe. Apples keep better when grown on sod land.

All vegetables must be secured, and if rhubarb is taken up in large clumps and stowed away in a box in the shed until December, it can be forced in a warm cellar and be fit for use in midwinter.

Gather pears before ripe. Early plums will be gone, but the damsons will be at their best this month.

See that the roots that have been dug up and dried are safely stowed away, for such as tigridias, caladiums, tuberoses, as well as the hardier dahlia, gladiolus and and canna, need to be cared for.

Keep the house plants free from frost but out of doors as long as possible, then into a cool room.

Apples are better placed on shelves in a cellar for family use. It is easy then to

see if one begins to decay, and if they are carefully picked they will keep better than if packed in barrels.

All ground that has had the plants moved away should be dug or ploughed and left ready for spring planting.

If drains are needed, this is the month to begin operations.

In order to start early in spring, asparagus and rhubarb should be covered with rough manure this month or next, which depends on the weather; it is better left till the ground is frozen.

Gather gnarled apples and fallen leaves for the compost heap, and burn any from diseased trees.

NOVEMBER.

In many localities it will be safer to have the celery and turnips secure in the cellar before Hallowe'en, but the smell of frost in the air is the best guide.

Grape vines must be pruned, taken from the trellis and laid down with a stone or clump of earth to keep each limb in place.

Roses, too, require the same treatment, and to be banked with earth around the stem.

Horse radish and parsnips are the latest

vegetable to dig, and, like turnips, the later they remain in the ground, with any safety from frost, the finer the flavor.

All tools must be put away ready for next season. Nothing looks more unthrifty than to see implements left to rust around the garden.

See that the oleanders, hydrangeas and other plants are in good condition when they go into the cellar.

Be careful in putting litter over the Holland bulb. After the ground freezes, a few branches to catch the snow is the best covering if there is any danger of field-mice or moles being about. These animals feed on the bulbs, and the moles burrow among them in search of earth worms. Sometimes the ground is honeycombed by their researches.

Keep the cactus plants dry till February, when the sun is stronger and flowering near.

Give callas plenty of light and water, and put carnations in a light, airy place. Have the soil moist, but never really wet or plants will rot with so little sunshine.

DECEMBER.

This is the resting month of the gardening year, when we can look back over results and enjoy the fruits of our labors.

If there is a shrub of mahonia (American holly) in the garden, it can be cut before the first heavy snow, and kept moist for Christmas decoration.

Ivy looks well trained around pictures in the living room for the same purpose, and a hanging pot or basket may yet be filled with moss from the woods to help retain moisture.

Chrysanthemums will be fading, but if care is taken in spring selection half a dozen plants will last through to December.

A well-shaped Jerusalem cherry looks bright and cheerful at this season, and the graceful fronds of the Boston fern are very attractive.

So, in the light of home, whether the garden be small or large, if it has been faithfully tended the amateur gardeners "rest from their labors, and their works do follow them."

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Crops
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